

R E P O R T R E S U M E S

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ESTABLISHMENT OF A STATE VOCATIONAL STUDIES AND EXPERIMENTAL
PROGRAMS COORDINATING UNIT.

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REPORT NUMBER ERD-325

PUB DATE 30 NOV 66

REPORT NUMBER BR-5-0138

CONTRACT OEC-5-85-130

EDRS PRICE MF-\$0.09 HC-\$0.84 21P.

DESCRIPTORS- RESEARCH PROJECTS, *VOCATIONAL EDUCATION,
*RESOURCE CENTERS, PROGRAM DEVELOPMENT, EVALUATION,
*DEVELOPMENTAL TASKS, EDUCATIONAL PROBLEMS, INFORMATION
DISSEMINATION, *STATE PROGRAMS, OCCUPATIONAL INFORMATION,
*RESEARCH COORDINATING UNITS, TALLAHASSEE, FLORIDA

A VOCATIONAL PROGRAM RESEARCH COORDINATING UNIT WAS
DEVELOPED TO COORDINATE, ENCOURAGE, AND ASSIST IN THE
PREPARATION OF STUDIES TO IMPROVE VOCATIONAL EDUCATION.
INITIAL TASKS INVOLVED COMPILATION OF VOCATIONAL RESEARCH,
IDENTIFICATION OF AVAILABLE RESOURCES, ASSISTANCE IN
DEVELOPING ADDITIONAL RESOURCES, IDENTIFICATION OF PROBLEM
AREAS, ENCOURAGEMENT OF RESEARCH IN PROBLEM AREAS, FIELD
TESTS OF INNOVATIONS, AND EVALUATION AND DISSEMINATION OF
RESULTS. THE UNIT SHOWED PROMISING DIRECTIONS FOR
ACCOMPLISHING ITS RESEARCH COORDINATION FUNCTION. (GD)

ED010596

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education

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FINAL REPORT
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November 30, 1966

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

ESTABLISHMENT OF A STATE VOCATIONAL STUDIES AND
EXPERIMENTAL PROGRAM COORDINATING UNIT

Contract No. OE-5-85-130

G. W. NEUBAUER

November 30, 1966

The research reported herein was performed pursuant to a contract with the Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

FLORIDA STATE DEPARTMENT OF EDUCATION
Division of Vocational, Technical, and Adult Education
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Tallahassee, Florida

INTRODUCTION

An overall objective of vocational education in Florida is to assist present and prospective employees, in occupations requiring less than a baccalaureate degree, in developing for themselves understandings and insights of basic knowledge, skills, and values necessary for effective entry and progress in the world of work.

Implicit in the objective is the assumption that all citizens are entitled to equal educational opportunities. Vocational education will assist persons of all ages, ability levels, and backgrounds to obtain an education designed to lead toward the establishment of an economically self-supporting citizenry.

If the purpose is to be realized a broadened, expanded, and intensified program of research, concerning people, jobs, and schools, is needed to realistically plan for meaningful vocational-technical programs.

PURPOSES

The purposes of the Florida Vocational Program Research Coordinating Unit are to coordinate, encourage, and assist in the preparation of studies needed to improve vocational education in Florida. The Unit was established to initiate and coordinate research, develop a state-wide program of studies and experimentation, and provide for the dissemination of results.

Unit personnel will cooperate with local, county, area, and state educational agencies, and other public agencies within and outside the state, involved either directly or indirectly, in all aspects of vocational and technical education.

PROCEDURES

In order to accomplish the purposes of the Unit it was necessary to: (a) compile summaries of vocational research; (b) identify resources available for conducting vocational-technical studies; (c) assist in developing additional resources; (d) identify vocational-technical problem areas needing study; (e) encourage concentration of resources in those areas; (f) field test innovations; and (g) disseminate

results.

The purposes and objectives outlined could not be achieved in isolation. They required utilization of special talents of vocational educators and their colleagues in other disciplines. Specifically, assistance was solicited from:

- .Local Vocational Personnel
- .Junior College Personnel
- .Vocational Teacher Educators
- .University Personnel in Other Disciplines
- .State Department of Education Personnel
- .Other State Agency Personnel
- .Non-profit Research Organizations

RESULTS

The Unit has been concerned with establishing promising directions for accomplishing the research coordinative function outlined above. An overview of activities designed to accomplish the program included:

- .Acquainting interested and responsible personnel from local vocational-technical schools, junior colleges, senior colleges, the State Department of Education, other state agencies, and professional, non-profit research organizations with the purposes of the Florida Vocational Program Research Coordinating Unit. Correspondence, brochures, newsletters, and personal contacts have served as methods of acquainting and keeping personnel informed.
- .Compiling and distributing descriptions of research, studies, and investigations significant to vocational-technical and adult education being conducted within and outside the state.
- .Identifying human resources available for conducting vocational-technical research through contacts and consultation with

local vocational administrators, senior and junior college deans and counselors, educational psychologists, rural sociologists, economists, other university personnel, State Department of Education personnel, and related public agency personnel.

.Determining significant, researchable problem areas in vocational, technical, and adult education through:

- ..Meetings and discussions with committees in each of the vocational, technical, and adult education sections.
- ..Special committee work during the Annual Vocational, Technical, and Adult Education Leadership Conference.
- ..Work groups attending the RCU Invitational Research and Development Conference (see Appendix A).

.Consulting with personnel at all educational levels as they:

- ..Developed special grant applications.
- ..Designed data gathering instruments.
- ..Analyzed and interpreted data.
- ..Planned future programs (see Appendix B for a Program of Work).

.Meeting with the Advisory Committee in assessing activities identified a concern that the Unit:

- ..Continue to use the coordinative function as a basic guide to further activity.
- ..Consider for inclusion a staff member of the Florida Development Commission.

..Continue to release periodically the Unit Newsletter, including a section on "abstracts of recent occupational research."

..Maintain a close working relationship with the State Employment Service to guard against duplication of effort in conducting occupational surveys.

DISCUSSION

The Florida Research Coordinating Unit was approved in June, 1965. The first full-time employee was secured in September, 1965 and the second was employed in January, 1966; therefore, the Unit was detained in an initial establishment of promising directions for accomplishing its function.

An analysis of the Unit activities reported in Appendix B indicates that the two full-time employees worked to accomplish the following broad functions:

1. Compile summaries of vocational studies and experimentation in progress.
2. Identify resources available for conducting vocational-technical studies and assist in developing additional resources.
3. Identify vocational-technical problem areas needing study and encourage concentration of resources in those areas.
4. Field test innovations through pilot programs.
5. Disseminate results.
6. Program administration and supervision.

The Unit staff, in establishing the functions, assumed that there is a relationship between all educational institution arrangements and innovations in vocational education, and that each institution has specific functions in the various phases of the innovative process. The State Department of Education must accept a major role in problem identification,

program development, dissemination, and implementation carried out through close cooperation with local schools, institutions of higher education, other interested agencies, and the federal government as each fulfills supporting roles.

Each of the above functions has received initial attention. Problems to be researched have been identified and priorities established. An immediate problem presently receiving consideration centers upon the provision of programs to train persons interested in designing and conducting studies and investigations to improve vocational education. A correlary problem is that of buying time of personnel at all educational levels to become involved in each aspect of the research and development process used in program improvement through planned change.

Summaries of vocational studies and experimentation have been made and the findings can supply needed information useful in developing innovative programs. There exists in Florida a need to establish pilot school centers to field test and demonstrate more flexible programs, methods, and procedures in the vocational-technical preparation of its citizens. Plans to establish the pilot centers during the 1967 fiscal year are being developed.

Available human resources have been identified and brought to bear on some of the most pressing problem areas. An analysis of vocational studies and investigations with which the Florida RCU has been associated shows that project applications developed to provide answers to problems affecting the Florida educational system having implications for the nation as a whole include:

1. Establishment of a State Vocational Studies and Experimental Programs Coordinating Unit --
Dr. G. W. Neubauer, State Department of Education --
OE-5-85-130
2. Factors Related to Educational and Occupational Aspirations of Early Adolescent Males From Culturally Deprived Families -- Dr. Ruth J. Dales, Florida State University -- OE-5-85-058
3. A Proposal For The Development of a Pre-Vocational Education Literacy Course to be Used in Computer Assisted Instruction With Disadvantaged Youths and Adults -- Dr. Ed Hankin, Florida State University
4. Analysis of Research on Selected Aspects of Evaluation in Adult Education -- Elizabeth N. Sutton, Florida State University -- OE-5-10-252

5. A Follow-Up Normative Study of Negro Intelligence and Achievement -- Dr. Wallace Kennedy, Florida State University -- OE-5-85-004
6. An experimental Design For a Multi-Cultural Nongraded Area Vocational School Associated With a Community College -- Nelson Donnell, Brevard County -- 6-2164
7. An Inter-Disciplinary Approach to Improving the Development of Culturally Disadvantaged Children -- Dr. Ira Gordon, University of Florida -- USOE-5-85-080
8. Differential Identification of Successful Technical Students in Junior Colleges -- Charles Joseph Turner and Dr. Wilson H. Ghertin, Central Florida Junior College -- OE-5-85-064
9. An Eight-Week Summer Institute Training Program to Retrain Office Education Teachers for Teaching Business Electronic Data Processing -- Dr. Theodore Koschler, Miami-Dade Junior College -- OE-5-85-098

Projects developed to provide answers to questions pertinent to local, area, and state problems include:

1. A Study to Identify Problem Areas Through Investigation and Research -- Dr. Inez Frink, Florida State University -- 566-70
2. A Study of Instruction Needed in Mechanics in High School Vocational Agricultural Classes -- W. T. Loftin, University of Florida -- 566-6
3. A Determination of a Course of Study for High School Vocational Agriculture -- W. T. Loftin, University of Florida -- 566-7
4. A Development of a Design For Research and Plans for Vocational Development in Agriculture -- W. T. Loftin, University of Florida -- 566-38
5. A Study to Identify Business Education Problem Areas Through Investigation and Research -- Dr. James Crews, University of Florida -- 566-69
6. A Work Experience Program in Business Education -- Dr. James Crews, University of Florida -- 566-72

7. Professional Competency of Teachers of Technical Education -- Dr. E. L. Kurth, University of Florida -- RCU-67-3
8. A Pilot Study in Typewriting -- Dr. James Crews, University of Florida -- RCU-67-2
9. A Study to Identify Business Education Problem Areas Through Investigation and Research -- Ruth Brewer, Florida Atlantic University -- 566-74
10. A Study in Occupational Education -- Donald P. Jaeschke, University of South Florida -- 566-14
11. A Determination of Occupational Needs -- Hugh Adams, Charlotte County -- 566-20
12. A Survey of Vocational-Technical Education Needs of Communities Served by Lake City Junior College -- William D. Ceely, Columbia County -- 566-10
13. A Study to Determine Vocational Needs for Franklin County -- J. B. McKissack, Franklin County -- 566-45
14. A Survey of Related Agricultural Occupations -- M. D. Walker, Gadsden County -- 566-90
15. A Survey to Determine Occupational Needs of Glades County -- Robert L. Hipps, Glades County -- 566-21
16. A Survey for Construction Plans of the Lake County Area Vocational-Technical Center -- Ray M. Hayes, Lake County -- 566-81
17. A Survey of Agri-Business Employment Opportunities -- Ray M. Hayes, Lake County -- 566-84
18. A Survey of Agricultural Occupations Needing Agricultural Skills and Competencies in Lee County -- R. F. Lee, Manatee County -- 566-83
19. A Survey of Nassau County with Emphasis on Determining Employment Needs -- Robert B. Johnson, Nassau County -- 566-9
20. An Off-Farm Agricultural Occupational Survey -- Pellon Morris, Palm Beach County -- 566-93

21. A Study to Provide Pinellas County School System With Findings for Improvement and Extension of Vocational Education -- Dr. Fred Stuart, Pinellas County -- 566-8
22. An Agricultural Occupations Survey -- Polk County -- 566-92
23. A Survey of Agricultural Occupations -- Wyman L. Jones, Santa Rosa County -- 566-82
24. An Area Vocational Survey of Four Counties -- W. D. Hartley, St. Johns County -- 566-68
25. A Survey of Related Agricultural Occupations -- H. Wilson Suggs, Suwannee County -- 566-85
26. An Occupational Survey of Walton County -- Burvin E. Pugh, Walton County -- 566-22

The listing shows that projects approved for funding through Section 4(c) of P. L. 88-210 are concerned with development of human resources and with the development of educational facilities and arrangements. Projects approved to use 4(a), or state ancillary funds, were concerned with surveys designed to improve understandings of job opportunities, employer expectations, research problem identification, and program development.

Three projects were partially funded, with approval of the federal RCU project director, to aid in the accomplishments of Unit objectives. The first project, An Assessment of Occupational Opportunities in the State of Florida Which Utilize Knowledge and Skills Derived From The Field of Home Economics, will supply information concerning competencies, skills, and understandings needed by those who are employed in home economics-related occupations. Ultimately, the information will lead to the development of programs of instruction designed to adequately meet their needs. The second project, titled, Professional Competency of Teachers of Technical Education, will help teacher educators determine if professional competency in teachers of technical education is a function of a number of educational variables. It will also provide basic data from which indices predictive of competency in teachers of technical education might be derived. The third project, titled, A Pilot Study in Typewriting, is designed as a pilot study to prepare the way for a broader and perhaps deeper study of the comparative effectiveness of varied class sizes with a variety of instructional personnel in first-year typing. Results of the study should lead to

programs developed to effect a saving of instructional time per student and thereby reduce the instructional cost per student.

The concern of vocational leaders with survey-type research, involving an identification of employment needs and opportunities, is indicative of a basic need, identified during the First RCU Conference. Establishment of a Unit to continually gather information concerning current and projected labor market demands, job competencies required by employers, availability of manpower for training and other pertinent information required to plan and implement realistic high quality occupational education programs is presently being planned.

Evaluation of occupational education in the state is a continuing responsibility of the Division of Vocational, Technical, and Adult Education, and logically becomes a primary concern of the RCU. Without evaluation, there is no alternative but to rely on authority of tradition, intuitive judgment, and legislative mandate to provide direction for vocational-technical education endeavors. A need has been identified, through the First RCU Conference, for research in the area of evaluation. The Unit will be expanded to include an evaluative function. A major purpose of the evaluative studies will be to point out where improvements are needed and how such improvements may be introduced.

CONCLUSIONS

Activities of the Florida Unit have touched upon all aspects of program improvement through planned change for which it assumes coordinative responsibility.

There is need to continue the coordinative function as a basic guide to further efforts designed to improve vocational education through planned program change.

Work should be continued in each of the broad functions of the Unit program with added emphasis in: (a) field testing promising programs and disseminating new programs, methods, and techniques through the setting of demonstration schools; (b) expanding Unit efforts to include a comprehensive evaluation of vocational-technical education in the state; (c) establishment of an in-service program to train interested and capable local staff members in research techniques to ease the immediate shortage of program ancillary service personnel needed to work on identified problems in single and multi-county areas; (d) assisting in the establishment of a planning unit to gather information, on a continuous basis, needed to maintain, expand, and improve vocational-technical programs in the state.

SUMMARY

The purposes of the Florida Vocational Program Research Coordinating Unit is to coordinate, encourage, and assist in the preparation of studies needed to improve vocational education in Florida. The Unit will continue to initiate and coordinate research, develop a state-wide program of studies and experimentation, and provide for the dissemination of results. Unit personnel will cooperate with local, county, area, and state educational agencies, and other public agencies within and outside the state, involved either directly or indirectly, in all aspects of vocational and technical education.

In order to accomplish the purposes of the Unit it has been necessary to utilize the special services of all vocational educators and their colleagues in other disciplines to:

- (a) compile summaries of vocational research;
- (b) identify resources available for conducting vocational-technical studies;
- (c) assist in developing additional resources;
- (d) identify vocational-technical problem areas needing study;
- (e) encourage concentration of resources in those areas;
- (f) field test innovations;
- (g) disseminate results, and
- (h) continually evaluate existing programs.

Continued efforts to evaluate current programs, develop new programs based upon research findings, field test promising programs, and disseminate programs shown to have value will result in a viable state and local structure for accomplishing planned program change.

APPENDIX A

FIRST CONFERENCE

FLORIDA VOCATIONAL PROGRAM RESEARCH COORDINATING UNIT

Conference participants were organized into the following four work groups:

1. Local Administrators
2. Junior College Personnel
3. Teacher Educators
4. State Department of Education Personnel

Each work group was asked to discuss and record responses to the following questions:

1. What problems are significant to your responsibilities in Vocational, Technical, and Adult Education?
2. What rank order would you assign to identified problems?
3. What manpower is available to work on identified problems?
4. What manpower is needed to work on identified problems?

Questions 1 and 2 were combined, for reporting purposes, by each work group. The conference staff analyzed the group reports and identified the following problem areas. Each problem area is credited to the work group responsible for its identification:

PROBLEM AREAS	Work Group Number			
	1	2	3	4
I. <u>Program Evaluation</u>				
1. Placement and follow-up of secondary, junior college, adult, and post-secondary school students.		X		X

- | | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| 2. Time requirement as related to the preparation of vocational-technical and adult students. | | X | | |
| 3. Comparability of similar courses being offered by different vocational-technical schools as to the factor of cost. | X | | | |
| 4. Follow-up studies of new teachers to determine problems and discover areas in which they need additional help. | | | X | |
| 5. Ways and means of predicting success in teaching. | | | X | |
| 6. Economic advantages accruing from a well-planned vocational, technical, and adult education program. | | | | X |
| 7. Comparative studies of alternative ways of preparing people for jobs. | | | | X |
| 8. Program evaluations designed to include cost factors. | | | | X |
| 9. Comparison studies of vocational education offered in school plants developed through the use of educational specifications as compared to programs in plants developed without consideration of educational specifications. | | | | X |
| 10. Effectiveness of the present approach to teacher-education. | | | | X |

II. Curriculum Experimentation

- | | | | | |
|---|---|---|---|---|
| 1. Coordination of vocational-technical curriculum development on all levels.. | X | | | |
| 2. Articulation of vocational-technical curriculum at all levels.. | X | | | |
| 3. Development of programs to meet the special needs of students. | X | | | |
| 4. Development of programs flexible enough to meet occupational needs in the 1970's. | | X | | |
| 5. Training advantages of clustering. | | X | | X |
| 6. Teaching load. | | X | | |
| 7. Internship aspect of vocational teacher preparation. | | | X | |
| 8. Intra and intercommunication of groups responsible for vocational, technical, and adult education. | | | X | |

	1	2	3	4
9. Program development for small high schools.				X
III. <u>Personal and Social Significance of Work</u>				
None				
IV. <u>Personnel Recruitment and Development</u>				
1. Certification requirements.	X	X	X	X
2. Early identification of prospective personnel.	X	X		
3. Appropriateness of pre-service and in-service teacher education programs.			X	
4. Motivation of teachers to adopt new and improved instructional practices.			X	
5. State-wide survey to determine teacher needs at each level of vocational instruction.			X	
6. Identification of recruitment and certification problems for vocational personnel.			X	
7. Professional competencies needed by:				
a. Teachers				
b. Administrators				
c. Supervisors				
d. Teacher-educators				X
8. Need for personnel to perform ancillary services, i.e., research.				X
V. <u>Program Organization and Administration</u>				
1. Communication between state and local level.	X			
2. Allocation of units by Minimum Foundation Programs.		X		
3. Study present state and local administrative structure for vocational, technical, and adult education.		X		X
4. Program allocation to junior colleges and area vocational schools.		X		
5. Coordination of manpower and facilities within the different sections of vocational, technical, and adult education to make better use of time, money, and staff.			X	

	1	2	3	4
6. Affect of certification and accreditation requirements on what we teach and how we teach.				X
7. Student selection and retention.		X		
VI. <u>Adult and Continuing Education</u>				
1. Extent of participation in adult and continuing education activities.				X
2. Availability of programs currently offered for adults in Florida (nature and scope).				X
3. Motivation of adults to continue their education.				X
4. Evaluation of:				
a. Recruiting practices (teachers & leaders for adult programs)				
b. Coordinative functions				
c. Program for adults with special needs				X
VII. <u>Occupational Information and Career Choice</u>				
1. Identification of occupations.	X	X	X	X
2. Identification of job opportunities.	X	X	X	X
3. Identification of needed competencies and knowledge by workers.	X	X	X	X
4. Continuous follow-up of occupational information.				X
5. Dissemination of occupational-opportunity information.				X
6. Vocational guidance:				
a. Recruiting and selecting counselors				X
b. Counseling practices				X
c. Pre-service preparation of counselors			X	X
d. In-service education of counselors.			X	X
VIII. <u>Other Areas</u>				
1. Public relations.		X		
2. Accreditation of vocational schools.		X		
3. Level, and geographic location, of vocational, technical, and adult offerings.		X		
4. Housing for junior college students.		X		

APPENDIX B

FLORIDA VOCATIONAL PROGRAM

RESEARCH COORDINATING UNIT

PROGRAM OF WORK

July 1, 1965 through June 30, 1968

ACTIVITIES DESIGNED TO ACCOMPLISH FUNCTIONS

1. Gather information concerning vocational studies and investigations from:
 - a. Teacher educators (vocational and other)
 - b. Vocational, Technical, and Adult Education Assistant Directors
 - c. Vocational-technical teachers, supervisors, coordinators, and administrators
 - d. Research and development coordinators of junior and senior colleges and universities
 - e. Research centers and laboratories
 - f. Educational research information centers
2. Examine and keep a file of vocational studies reported in professional journals.
3. Develop and distribute to interested persons

COMPILE SUMMARIES OF VOCATIONAL STUDIES AND EXPERIMENTATION IN PROGRESS

IDENTIFY RESOURCES AVAILABLE FOR CONDUCTING VOCATIONAL-TECHNICAL STUDIES AND ASSIST IN DEVELOPING ADDITIONAL RESOURCES

IDENTIFY VOCATIONAL-TECHNICAL PROBLEM AREAS NEEDING STUDY AND ENCOURAGE CONCENTRATION OF RESOURCES IN THOSE AREAS

FIELD TEST INNOVATIONS THROUGH PILOT PROGRAMS

DISSEMINATE RESULTS

PROGRAM ADMINISTRATION AND SUPERVISION

X

X

X

compilations of research using federal and state funds.						X
4. Make personal visits to state universities, colleges, junior colleges, and county school systems to meet personnel and discuss the problem of human resource identification; specifically, to determine special research interests, capability, and availability of personnel to research identified problems of vocational-technical education.		X				
5. Work cooperatively to develop and revise methods and procedures for determining problems needing study and investigations and the assignment of priorities to those problems.		X				
6. Work with interested persons and/or groups through planned seminars to develop understandings of research and development techniques.		X				
7. Collect and make available to all interested persons and groups summaries of studies through a Unit newsletter.	X				X	
8. Exchange Florida Unit Newsletters and other state research coordinating units.	X				X	
9. Cooperate with Educational Research Information Centers in identifying significant research pertinent to vocational-technical education.	X				X	
10. Assist in the preparation of grant applications for funding projects attacking recognized vocational problems requiring basic research, program development, field tests, and dissemination.				X		
11. Offer consultative service to educational agencies, organizations, and individuals in planning and evaluating project applications.				X		
12. Render supervisory services to directors of projects supported by state ancillary funds.						X
13. Furnish requested information to interested individuals concerning the Florida Vocational Program Research Coordinating Unit.						X

14. Attend state and national professional meetings.						X
15. Submit monthly, quarterly, and annual reports to state and federal officials.						X
16. Supervise the treatment of data collected in state-funded studies and investigations.						X
17. Plan and conduct invitational conferences to bring available resources to bear on identified problems.	X	X				
18. Develop "guidelines" to be used in field testing promising programs.			X			
19. Plan and conduct a work-conference to consider field tests as an aspect of program improvement through planned change.	X					
20. Work to establish fellowships in state universities to be used for doctoral candidates in vocational-technical research.	X					
21. Assist local units in obtaining qualified Vocational Program Development Associates to direct studies and investigations designed to improve vocational education through planned change.	X					
22. Collect and make available, to interested persons, research findings in the area of dissemination processes.						X
23. Develop "guidelines" for the establishment of demonstration schools.						X
24. Develop and conduct work-conferences on dissemination processes.						X
25. Encourage the establishment of demonstration schools in strategic geographic areas of the state.						X